

WHAT IS CLAIMED IS:

1. A method of conducting a circuit continuity test on an analog device having a first and a second node, said first and second node being coupled to a test circuit having a plurality of inputs,
5 comprising the steps of:
providing a first voltage via a first resistor to said first node using a first input of said test circuit; and
measuring a second voltage at the first node via a second input of said test circuit;
10 wherein said measured second voltage is indicative of the internal circuit continuity of said analog device.
2. The method of claim 1 wherein said measured second voltage is a diode drop below ground when the analog device first node has continuity.
3. The method of claim 2 wherein the measured second voltage is the
15 applied said first voltage when said analog device first node does not have continuity.
4. The method of Claim 1 wherein said second voltage is measured at said first node without using a relay.
5. The method of Claim 1 wherein said second voltage is measured
20 via a second resistor being in parallel with said first resistor.
6. The method of Claim 1 wherein said first voltage is negative voltage.

7. The method of Claim 2 further comprising the step of simultaneously applying a third voltage to said second input node via a third resistor, and measuring a fourth voltage at said second node.

8. The method of Claim 1 wherein said analog device is an
5 operational amplifier.

9. A device, comprising:
an analog device having a first and second input node;
a first external circuit coupled to said first node, said first circuit
providing a first voltage via a first resistor; and
5 a second external circuit coupled to said first node without using a
relay, said second circuit sensing a second voltage thereat being indicative of the
internal continuity of said analog device first node.

10. The device as recited in Claim 9, wherein said second circuit is
coupled to and isolated from said first node via a second resistor.

10 11. The device as recited in Claim 9 wherein said analog device
includes a diode protection circuit having a diode coupled to said first node
wherein said second voltage produced at said first node is indicative of the
voltage drop of said diode when the first node has continuity.

12. The device as recited in Claim 9 wherein second circuit comprises
15 a testing device, wherein said testing device is capable of measuring said second
voltage produced at said first node.

13. The device as recited in Claim 9 wherein said first voltage is a
negative voltage.

14. The device as recited in Claim 9 wherein said analog device is a
20 differential amplifier.

15. The device as recited in Claim 10 wherein said first and second
resistors have the same value.

16. In combination
an analog device having a first and second input terminal
comprising a first and second node and a pair of output terminals;
a first resistor coupled to said first node, and first resistor receiving
5 a first input voltage;
a second resistor coupled to said first node;
a third resistor coupled to the said second node, said third resistor
receiving a second input voltage;
a fourth resistor coupled to said second node; and
10 wherein said second resistor and said fourth resistor communicate
a voltage at said first node and said second node, respectively, that is indicative of
the internal circuit continuity of said analog device.

17. The device as recited in Claim 16 wherein said analog device
includes an internal diode coupled to said first node, and said voltage output
15 across said second resistor is used to determine a voltage drop across said diode.

18. The device as recited in Claim 16 wherein said first input voltage
comprises a negative voltage.

19. The device as recited in Claim 16 wherein said analog device is
configured as a differential amplifier.

20. The device as recited in Claim 17 wherein said second resistor and
said fourth resistor are coupled to a testing device, wherein said testing device
measures the voltage drop across said diode.

21. The device as recited in Claim 16 wherein said analog device has a pair of feedback circuits each providing feedback, one said feedback circuit being coupled between each said output terminal and one said respective input terminal.